

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE RECONSTRUCTION OF AN EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 2 (SOLOMON'S ISLAND RD.) AND FOREST DRIVE IN ANNE ARUNDEL COUNTY. THIS TRAFFIC CONTROL SIGNAL SHALL BE INCLUDED WITH THE MD 2 - MD 450 SYSTEM. VIDEO DETECTION CAMERA SYSTEM SHALL BE PROVIDED FOR DETECTION. THE SAMPLING FIELDS ARE LOCATED FAR SIDE ON THE SOUTH AND NORTH LEG MD 2. STREET LIGHTING SHALL BE PROVIDED FROM THE NORTHEAST AND SOUTHWEST QUADRANTS. MD 2 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

CONTROLLER OPERATION

THE INTERSECTION SHALL CONTINUE TO DEPRATE IN A NEMA (6) SIX-PHASE, SEMI-TRAFFIC-ACTUATED MODE, WITH EXCLUSIVE LEFT TURNS ON MD 2. FOREST DRIVE SHALL RUN SPLIT PHASE OPERATION. A NEMA EIGHT-PHASE, FULL-TRAFFIC-ACTUATED, SOLID STATE DIGITAL CONTROLLER WITH VIDEO INTERFACE, CONTROL AND DISTRIBUTION WITH ALL NECESSARY EQUIPMENT HOUSED IN A NEMA SIZE "6" BASE-MOUNTED CABINET SHALL BE INSTALLED.

PHASE CHART

	1,1A	2	3	4	5	6	7	8	9	10	11	12	13	14
PHASE 1 & 5	<G-	<G-	R	R	<G-	<G-	R	R	R	R	R	R	R	R
1 & 5 CHANGE	PHASE 1 & 5 CHANGE MAY CHANGE TO PHASE 1 & 6, 2 & 5 OR 2 & 6													
PHASE 1 & 6	<G-	<G-	G	G	<R-	<R-	R	R	R	R	R	R	R	R
1 & 6 CHANGE	<Y-	<Y-	Y	Y	<R-	<R-	R	R	R	R	R	R	R	R
PHASE 2 & 5	<R-	<R-	R	R	<G-	<G-	G	G	R	R	R	R	R	R
2 & 5 CHANGE	<R-	<R-	R	R	<Y-	<Y-	Y	Y	R	R	R	R	R	R
PHASE 2 & 6	<R-	<R-	G	G	<R-	<R-	G	G	R	R	R	R	R	R
2 & 6 CHANGE	<R-	<R-	Y	Y	<R-	<R-	Y	Y	R	R	R	R	R	R
PHASE 3	<R-	<R-	R	R	<R-	<R-	R	R	G	G	R	R	R	R
3 CHANGE	<R-	<R-	R	R	<R-	<R-	R	R	Y	Y	R	R	R	R
PHASE 4	<R-	<R-	R	R	<R-	<R-	R	R	R	R	G	G	R	R
4 CHANGE	<R-	<R-	R	R	<R-	<R-	R	R	R	R	Y	Y	Y	Y
FLASHING OPERATION	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R

EQUIPMENT LIST "B" CONTINUED

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR
ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO DOTS FOR APPROVAL PRIOR TO INSTALLATION.

ITEM NO.	QUANTITY	DESCRIPTION
8047	5 EA	REMOVE AND DISPOSE OF FOUNDATION 12 IN. BELOW GRADE
8048	LS	REMOVE AND DISPOSE OF MATERIAL AND EQUIPMENT
8049	4 EA	VIDEO DETECTION CAMERA
8050	1 EA	VIDEO INTERFACE EQUIPMENT
8051	140 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
8052	400 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - BORED
8053	160 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
8057	22 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8060	480 LF	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
8070	50 LF	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO. 4 A.W.G.-THHN/THWN
8072	6 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8080	5 EA	FURNISH AND INSTALL GROUND ROD 3/4 IN. DIAMETER BY 10 FT. LENGTH
8081	1100 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (ALUMINIUM SHIELDED)
8084	120 LF	FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 A.W.G.)
8085	2580 LF	FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 A.W.G.)
8086	470 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (NO. 12 A.W.G.)
8093	1 EA	FURNISH AND INSTALL CONTROLLER AND CABINET BASE MOUNT
---	2 EA	FURNISH AND INSTALL D3-2 SIGN DUAL FACED "FOREST DR." (VAR. X 16") MAST ARM MOUNT
---	2 EA	FURNISH AND INSTALL D3-2 SIGN DUAL FACED "SOLOMON'S IS. RD." (VAR. X 16") MAST ARM MOUNT
---	3 EA	FURNISH AND INSTALL R3-5L SIGN (30" X 36") MAST ARM MOUNT
---	2 EA	FURNISH AND INSTALL R3-6 SIGN (30" X 36") MAST ARM MOUNT
---	1 EA	FURNISH AND INSTALL GUIDE SHIELD ASSEMBLY POLE MOUNTED SIGN (36" X 75") M3-1 "NORTH" (30" X 15"), M1-5 "MARYLAND 2" (36" X 36") M6-1 "LEFT ARROW" (30" X 24")
---	1 EA	FURNISH AND INSTALL GUIDE SHIELD ASSEMBLY POLE MOUNTED SIGN (36" X 75") M3-3 "SOUTH" (30" X 15"), M1-5 "MARYLAND 2" (36" X 36") M6-1 "LEFT ARROW" (30" X 24")
---	1 EA	FURNISH AND INSTALL GUIDE SHIELD ASSEMBLY POLE MOUNTED SIGN (30" X 51") M3-3 "SOUTH" (24" X 12"), M1-5 "MARYLAND 2" (30" X 24") M6-1R "RIGHT ARROW" (21" X 15")
---	65 LF	FURNISH AND INSTALL 10 IN. YELLOW HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
---	180 LF	FURNISH AND INSTALL 10 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
---	300 LF	PULL BACK AND RE-INSTALL EXISTING CABLE

EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

ALL OTHER SHALL BECOME THE PROPERTY OF THE CONTRACTOR

TRAFFIC **C**ONCEPTS, INC.

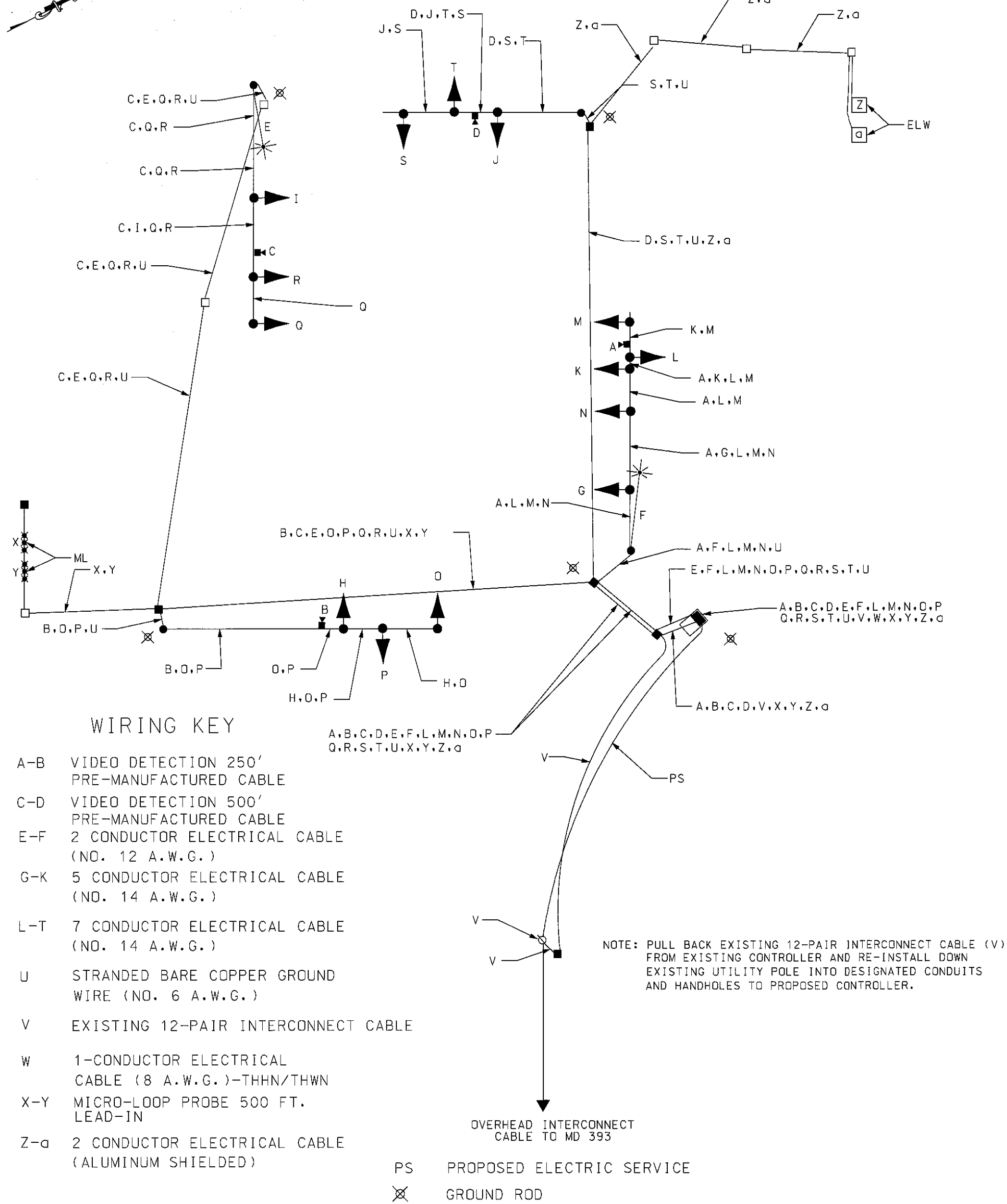
325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923-7101



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION
MD 2 (SOLOMON'S ISLAND ROAD)
AND FOREST DRIVE

DRAWN BY: <u>M.HOWELL</u>	F.A.P. NO. _____	TS NO. <u>71E</u>	SHEET NO. _____
CHECKED BY: <u>T.ZAYDEL</u>	S.H.A. NO. _____	T.I.M.S. NO. _____	3 OF 3
SCALE: <u>1" = 20'</u>	COUNTY: <u>ANNE ARUNDEL</u>	LOG MILE: <u>02000220.19</u>	
DATE: <u>10-10-02</u>			

WIRING DIAGRAM



EQUIPMENT LIST "A"

A. APPROVED SHA EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:

MR. JOHN MAYS ASSISTANT DISTRICT ENGINEER - UTILITIES (410) 841-1002	MR. CHARLES GEORGE ASSISTANT DISTRICT ENGINEER - MAINTENANCE (410) 841-1002
MR. LARRY ELLIOTT ASSISTANT DISTRICT ENGINEER - TRAFFIC (410) 787-7630	MR. EUGENE BAILEY TEAM LEADER SIGN OPERATIONS (410) 787-7676
MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS (410) 787-7631	MR. DAVID SCHWARTZ SUPPLY OFFICE IV (SIGNAL SHOP WAREHOUSE) (410) 787-7668
MR. ED RODENHIZER TEAM LEADER SIGNAL OPERATIONS (410) 787-7652	

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR
ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO DOTS FOR APPROVAL PRIOR TO INSTALLATION.

ITEM NO.	QUANTITY	DESCRIPTION
1001	LS	MAINTENANCE OF TRAFFIC
2002	5 CY	TEST PIT EXCAVATION
5001	4 EA	FURNISH AND INSTALL HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING ARROW
5005	50 LF	FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
5006	2240 LF	FURNISH AND INSTALL 5 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
5007	530 LF	FURNISH AND INSTALL 5 IN. YELLOW HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
5008	140 LF	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS ANY WIDTH
8001	2 EA	FURNISH AND INSTALL 250 FT. VIDEO CABLE TO CONTROLLER
8003	2 EA	FURNISH AND INSTALL 500 FT. VIDEO CABLE TO CONTROLLER
8006	1 EA	CUT, CLEAN, CAP TRAFFIC SIGNAL STRUCTURE
8011	43 EA	FURNISH AND INSTALL 12 IN. VEHICULAR SIGNAL HEAD SECTION
8013	2 EA	FURNISH AND INSTALL 15 FT. BRACKET ARM FOR SIGNAL STRUCTURE
8014	2 EA	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCCELL
8019	6 EA	FURNISH AND INSTALL 8 IN. VEHICULAR SIGNAL HEAD SECTION
8020	1 EA	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT FOR SIGNAL
8022	1 EA	FURNISH AND INSTALL MAST ARM POLE AND 50 FT. MAST ARM
8023	2 EA	FURNISH AND INSTALL MAST ARM POLE AND 60 FT. MAST ARM
8024	1 EA	FURNISH AND INSTALL MAST ARM POLE AND 70 FT. MAST ARM
8044	2 EA	FURNISH AND INSTALL NON-INVASIVE MICRO-LOOP PROBE WITH 500 FT. LEAD-IN